Please Scan Informal Ex. amdt

12a

BWH 11/16/05 device 5300 of Fig. 5~~8~~ and behaves similarly. Thus, in optimal conditions and when high amplitude signal 5633 or 5639 enters device 5624, its amplitude is above the threshold of

BWH 11/16/05 device 5624 and ,as explained above for device 5300 of Fig. 5~~8~~ 12a, it is emitted out of device 5624 through its output 5622 and no signal returns back into input 5616.

When input signals 5630 and 5632 are received simultaneously, by inputs 5602 and 5604, respectively, then signals 5633 and 5639 are produced at guide 5614. In this case, signal 5633 is delayed relative to signal 5639 by a time delay Δt produced by delayer 5612. In this case, when pair of high amplitude signals 5639 and 5633 is received in input 5616 it is split, by coupler 5620 into two pairs of pulses that propagate in loop 5618 in opposite directions. One pair includes signals 5639A and 5633A travels clockwise along arrows 5646 and 5642. This pair is converted, by attenuator 5668, into a pair of small amplitude signals 5639A and 5633A that are in the linear range of amplifier 5626. The other pair includes high amplitude signals 5639B and 5633B that are in the saturated region of amplifier 5626 and travels counterclockwise along arrows 5648 and 5644. Signals 5639B and 5633A pass, on their way back to coupler 5620, through amplifier 5626 without colliding or interacting with other signals on or by this amplifier. Pulses 5639A and 5633B pass, on their way back to coupler 5620, through amplifier 5626 while colliding or interacting with each other on or by this amplifier.

The large amplitude of signals 5633B and 5639B fall within the saturated region of amplifier 5626; the amplitude of signals 5633A and 5639A is relatively small and is in the linear region of amplifier 5626. In the optimal case, the phase difference between the phase shifts, produced by amplifier 5626, for the high amplitude of signals 5633B and 5639B and the low amplitude of signals 5633A and 5639A is π radians. The phase of